APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/343,517	06/30/1999	ROBERT BURNETT	A7489	8018

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EXAMINER
FERRIS, DERRICK W

ART UNIT	PAPER NUMBER
2663	

DATE MAILED: 09/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No 09/343,517	Applicant(s) BURNETT, ROBERT
	Examiner Derrick W. Ferris	Art Unit 2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

    A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 June 1999* .

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
    closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 October 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
            application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *4* .	6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2.   **Claims 1 and 2** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

It is unclear given the structure recited in **claim 1** on what the relationship is

between the routers and the IP devices (e.g., does applicant mean that each IP device

connects to a corresponding router or gateway, these routers in-turn are interconnected to

at least one other router to form a network). Although **claim 2** provides some insight on

how the IP devices are connected, there still exists some level of uncertainty (e.g., given

the claim language there exists a case where both IP devices can connect to one router

thus providing confusion when referring to a local gateway and remote gateway).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4.   **Claims 1-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent

No. 5,461,624 to Mazzola in view of "TUBA: Replacing IP with CLNP" by Katz et al.

Assumptions were made to overcome the 112 rejection(s) made previously for the

purpose of making the following rejection.

As to the claims in general (and particularly **claims 1-2, 5-9, 12-14, 16-17, and 20-21**)

the following is noted in applicant's summary:

"The present invention obviates the above deficiencies of the known techniques by

tunneling management data and other information to and from remotely located IP NEs

via the SONET DCC by placing IP over the Connection Less Network Protocol (CLNP)

that is present in OSI".

Figures 4a and 4b of Mazzola illustrate block diagrams of an IS circuit pack and an ES/IS circuit

pack, respectively. For illustrative purposes, the block diagrams are specific for a SONET

application; however, the application may be used in connection with other protocols as well

[column 5, lines 7-25]. As shown in the diagram, the Connection Less Network Protocol

(CLNP) is running over SONET (e.g., SONET-OSI) at the network layer. Not shown in the

diagram is overlaying an IP interface over a second communications protocol (e.g.,

CNLP/SONET-OSI). <u>Examiner points out to applicant that one cannot compare IP with SONET</u>

<u>as they are two different layers using the OSI reference model (IP is layer 3 at the network layer,</u>

<u>and SONET is layer 1 at the physical layer). Hence it assumed when applicant refers to SONET-</u>

<u>OSI as the second communications protocol, applicant is really referring to CLNP running over</u>

<u>SONET when trying to compare an IP interface with SONET with respect to routing at the</u>

<u>network layer.</u>

Katz et al. provides this relationship by not only mapping IP and CLNP but also

providing a mechanism for routing the two protocols [page 38] using an approach called TCP

and UDP with Bigger Addresses (TUBA). Shown in Figure 10 [page 45] is the network stack

for routing the two protocols. Shown in Figure 8 is interarea routing for CLNP using IS-IS at the

core and ES-IS at the edge. Furthermore, Mazzola also discloses routing for SONET/CLNP

using ES-IS [column 1, lines 20-25]. Hence it would have been obvious to a skilled artisan to

apply the knowledge taught by Katz et al. for mapping IP to CLNP (i.e., overlaying an IP

interface or IP tunnel interface over said second communications protocol) and then routing the

information over SONET using IS-IS and ES-IS. It would have been furthermore obvious to

implement this knowledge over a set of routers in a network forming both a local gateway and a

remote gateway as is well known in the art, and based on the examples provided by both

references (e.g., shown in figure 2a of Mazzola and figure 6 of Katz et al.).

As to **claims 3, 4, 10 and 15 specifically**, since the data can be routed using CLNP, a

tunnel can be created. In addition, both Mazzola and Katz et al. disclose NSAP addressing.

Examiner notes that EI-IS and IS-IS contain routing table(s). Furthermore, Katz et al. discloses

mapping IP to NSAP addressing [pages 40-41]. As IP can be replaced by CLNP it is possible for

the two to coexist.

As to **claims 18 and 19 specifically**, Katz et al. discloses network management using

SNMP [page 45]. Although a network administrator per se is not clearly mentioned, examiner

notes it would have been obvious for a skilled artisan prior to applicant's invention to recognize

that a network administrator can use SNMP based tools for configuring or maintaining

information about the network. In addition, examiner notes that it is possible to obtain both the

network address as well as the IP device address using standard network layer diagnostic tools as

is well known in the art [Katz et al. page 45].

As to **claim 11**, with respect to a network manager, Katz. et al. discloses being able to operate a broadcast query between both CLNP and IP thus making a broadcasting possible between the two protocols. In addition, routing between hosts and routers is also disclosed [page 41]. Hence examiner notes it would have been obvious for a skilled artisan to receive a response back from either a host (e.g., a second IP device) or a router (e.g., a router connected to the second IP device).

Mazzola discloses a method for distributing routing between network elements for CLNP. Katz et al. provides mapping IP to CLNP. As both references revolve around CLNP there exists a motivation for combining the subject matter as a whole.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (703) 305-4225. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (703) 308-5340. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-3900.

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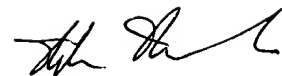Derrick W. Ferris
Examiner
Art Unit 2663
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DWF

August 27, 2002

MELVIN MARCELO
PRIMARY EXAMINER